

ABSTRACT OF THE DISCLOSURE

A vane pump is disclosed for use with gas turbine engines which has pressurized fluid supplied to the undervane portion of the vane elements to balance the forces imparted thereon. The vane pump includes a pump housing, a cam member, a cylindrical rotor member and a chamber. The chamber is defined within the housing and positioned for fluid communication with the undervane portion of each vane element to provide a desired pressure thereto. The chamber is in fluid communication with a first pressure source and a second pressure source, wherein the first pressure source is associated with the discharge arc segment of the pumping cavity, and the second pressure source is associated with the inlet arc segment of the pumping cavity.

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